

City of Fremont Building and Safety Division 39550 Liberty St. Fremont, CA 94538 510-494-4400 Office

## **Electric Vehicle Charging Stations**

Electric vehicle charging stations (EVCS) must be installed in accordance with manufacturer's installation instructions and in accordance with current codes (2013 California Electrical Code based on the 2011 National Electrical Code). Wiring methods in Chapter 3 of the CEC must be applied to each installation. The EVCS must be listed by a nationally recognized testing laboratory (NRTL). Building, Planning and Fire Department reviews may be required for commercial applications. NOTE: This policy applies to EVCS equipment and receptacle outlets intended for use with cord and plug type vehicle charging systems (e.g. Tesla, etc.).

Governor's *Plug-In Electric Vehicles: Universal Charging Access Guidelines* may be incorporated in the design and layout of charging stations, however it is not mandatory. Check the State's website of updates to guidelines. The Guidelines are available at: <a href="http://opr.ca.gov/docs/PEV\_Access\_Guidelines.pdf">http://opr.ca.gov/docs/PEV\_Access\_Guidelines.pdf</a>.

## **Required Documentation for all submittals**

- Three sets of drawings and complete manufacturer's installation instructions.
- Project specific <u>site plan</u> showing the location of the building, street, parking stalls, charging stations, electric service, conduit location, disconnects.
- Service load calculations per CEC Article 220.
- A single line diagram must be included in the submittal with the following information:
  - > Conductor types and sizes;
  - > Size of the over current device (circuit breaker) supplying the EVCS;
  - > Conduit size, type and location;
  - The manufacturer and model of the charging stations;
  - The size of the main electric panel, distribution panels (sub panels) and disconnects;
  - > Type charging station (Level 1, 2, or 3).
- A lockable disconnect is required in a readily accessible location (*CEC 625.23*) for EV charging stations <60A or 150V to ground. A phenolic plaque with red background and white letter stating "Emergency Power Off Electric Vehicle Charging Station" must be installed on each disconnect.
- Attachment detail for post/bollard installations where protection of electrical equipment is required.

**IMPORTANT NOTE:** Verification that the existing main service panel and all panels in the electrical system used for the EVCS are safe and free of electrical hazards. If electrical violations or hazards are present the Owner/Contractor will be required have to have a licensed contractor correct the violations and/or hazards. Damaged equipment must be replaced or repaired and will require permits and inspections.

SECOND SERVICES MAY ONLY BE APPLIED FOR WITH SPECIAL PERMISSION FROM THE CITY AND FROM THE UTILITY PROVIDER.